31 December 1958

MEMORANDUM TO THE FILE

SUBJECT: Meeting with [redacted] representatives to discuss possible further miniaturization of the CPC-2 Transmitter-Receiver combination. 25X1A5a1

1. On 9 December 1958, a meeting was held in [redacted] Washington office, the Commonwealth building, to discuss the possible further miniaturization of the CPC-2 Transmitter-Receiver combination. The following persons were present: 25X1A5a1

25X1A5a1 [redacted] Washington representative
Engineer
Engineer

25X1A9a [redacted]

2. The subject was stated as a requirement, the substance of which is to reduce the size of both the transmitter CPC-T 1A, and the receiver CPC-R2, particularly the thickness of the units. Various aspects of the problem were discussed, including the power output requirements, frequency coverage desired, receiver selectivity and transmitter stability, effective range, and possible duty cycle considerations.

3. Two basic approaches to the problem were discussed. One would be a completely transistorized transmitter and receiver with a separate battery pack. The other would be a transistorized receiver, a hybrid transmitter (transistorized except for the final power amplifier stage) and a separate battery pack. The following table shows a comparison of the two possibilities as to size and power output.

	SIZE		
	PRESENT UNIT	HYBRID UNIT	Completely TRANSISTORIZED UNIT
Transmitter	6 1/2" x 4" x 2"	5" x 2" x 7/8"	5" x 2" x 7/8"
Receiver	6 11/16" x 3" x 15/32"	5" x 3" x 1 5/32"	5" x 3" x 1 5/32"
Battery Pack	(packed in pouch w/XMTR	6" x 1 1/2 x 1 1/4"	2" x 2" x 1"

[redacted]

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R. F. POWER OUTPUT (transmitter)

	PRESENT UNIT	HYBRID UNIT	Completely TRANSISTORIZED UNIT
25- 54 mcs	.250 watts	.250 watts	.500 watts
148-174 mcs	.250 watts	.250 watts	.100 watts

4. The cost of a program to implement the reduction in size as discussed above was not estimated specifically. However, 25X1A5a1 [redacted] did mention that the cost of the transistors alone in the transmitter would equal or exceed the total cost of the present tube-type transmitter. He further mentioned that the cost of engineering the present model of the transistorized receiver was about "half a million dollars", with a side comment that certain of the design features of that receiver could be utilized in the design of a transistorized transmitter, thus effecting at least some reduction in the cost. In order to obtain a "quotation", it would be necessary that we draw up 25X1A5a1 specifications and submit them to [redacted]

5. The meeting adjourned with no commitment from either [redacted] or OC, but with at least a mutual understanding of the problems and the possible solutions inherent in a size reduction program. 25X1A5a1

[redacted] 25X1A9a

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